

Forward

Numerous requirements have been promulgated to protect workers, equipment, facilities and the environment. When work is performed, the specific requirements affecting the work must first be identified and incorporated into the work-plan. Because such requirements can number in the thousands, simply identifying all of the applicable chemical safety-related requirements that govern any work activity can be a monumental task. Concern over this was addressed in the 1994 DOE Chemical Vulnerability Study Management Response Plan, which identified the need for a complex-wide "Roadmap for Requirements". Similarly, discussions within the EFCOG/DOE chemical safety community have indicated that one of the main causes of continuing chemical safety deficiencies at DOE is the large number of requirements that govern chemical-related work at the Complex. Many of these requirements approach chemical safety from different perspectives and contain provisions that overlap and are sometimes contradictory and confusing. An EFCOG/DOE Chemical Safety Topical Committee (CSTC) Team, the Chemical User Safety and Health Requirements Roadmap (CUSHR) Team undertook the task of looking into this issue.

Background

The EFCOG/DOE CSTC CUSHR Team conducted a limited review of how DOE sites address compressed gases. Results showed that at these sites, only 50-70% of requirements were addressed in site documentation of chemical-related safety and health requirements. These results confirmed the view that while all DOE contractors who engage in the same work activities must follow the same requirements, many either do not know which requirements apply to their work or are confused by them. The Team concluded that this was likely due to the fact that multiple requirements from many varied sources frequently overlap, covering the same points in slightly different and sometimes conflicting ways.

To assist the sites in understanding and addressing the myriad requirements with which they must comply, the CUSHR Team committed to developing a series of activity-based chapters that consolidate the safety and health requirements that govern DOE chemical-related work activities, removing overlaps and resolving inconsistencies and contradictions.

Before beginning its work, the Team conducted a Chemical Storage Requirements Pilot in the summer of 2000 to see if this planned effort would be perceived as "value-added" for the DOE community. The pilot document provided consolidated chemical-related safety and health requirements for chemical storage, a universal activity conducted by all that use chemicals throughout the Complex. A listing of consolidated requirements for safe chemical storage, along with a survey was distributed to chemical users across the Complex. The survey results demonstrated that the effort to consolidate requirements will be useful to chemical users throughout the Complex and should continue.

In support of this mandate to assist the sites with a requirements roadmap, the CSTC CUSHR Team has begun work on developing a series of activity-based chapters that consolidate the safety and health requirements that govern DOE chemical-related work activities. This document will be produced as chapters that coordinate with the subjects covered in the DOE

CONSOLIDATED CHEMICAL USER SAFETY & HEALTH REQUIREMENTS

Chemical Management Handbook and will be published as a part of, or as a supplement to that Handbook.

Instructions for Use

This product consolidates existing, core safety and health requirements that all sites must follow when engaged in chemical-related activities. It is intended to consolidate overlapping and/or duplicative chemical-related safety and health requirements and to eliminate or resolve any inconsistencies or contradictions among those requirements. It serves only to **consolidate existing DOE and Federal chemical-related safety and health requirements.**

The listing of consolidated requirements includes "pointers" to the sources of those requirements, showing the user what the requirements are and where each comes from. In addition to DOE Orders, it includes Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), Uniform Building Codes (UBC), Uniform Fire Codes (UFC), American National Standards Institute (ANSI), and Compressed Gas Association (CGA) requirements that are cited in either DOE Order 440.1A or in OSHA standard 29CFR1910.6 ("Incorporation by Reference").

State and local codes are NOT included. U.S. Department of Agriculture (USDA) regulations are NOT addressed since the impact from these is considered to be negligible at DOE facilities. Similarly, U.S. Environmental Protection Agency (EPA) pesticide regulations are NOT addressed in this document since most DOE sites do not routinely store pesticides.

This product does NOT create any new or additional requirements.

In this web-based version of the document, wherever possible, the referenced requirements are hyperlinked directly to their source documents. Since ANSI, CGA, NFPA, UFC and UBC documents are available only to subscribers to those organizations, the hyperlinks for those referenced requirements will take the reader only to the web pages of those organizations. Subscribers can then access the specific requirements of interest. Non-subscribers may be able to find these documents in their site libraries or can purchase them through the organizations' web pages.

The first chapter of this Requirements Roadmap product that has been completed is designated "Chapter 5, Chemical Storage" to coordinate with the DOE Chemical Management Handbook's chapter 2.5 that addresses the storage aspects of an effective Chemical Management Program. It contains a glossary of terms and explanatory notes for certain of the various requirements consolidations.

The 225 requirements included in this document come from a large number of sources that have different safety purposes. As a result, some of these requirements may not always be applicable to the work being performed at an individual site or facility. It is the responsibility of each user to determine the applicability of these requirements to their work and how they are implemented.

The reference sources for the requirements included in this document can be used to determine the applicability of those requirements to the work being performed. The source requirements are listed to the left of the corresponding section of the document that consolidates the referenced requirements. If there is any question as to the applicability of a requirement or if it is thought that any requirement is taken out of

CONSOLIDATED CHEMICAL USER SAFETY & HEALTH REQUIREMENTS

context, then the reader can use the reference sources to research the original requirement. For each consolidation, a source document that is repeated is hyperlinked only once.

This draft chemical storage chapter is posted here for the review and use by the DOE Complex while the remaining chapters of this "Requirements Roadmap" project are under development. Once all of the chapters have been completed, the complete set will be posted on the DOE Chemical Safety web page and sent to all CSTC members and other interested parties across the Complex for their review and comment before being published as a part of the Chemical Management Handbook.

Please provide your comments to Dr. David Quigley, Chair of the CSTC CUSHR Team, at dq1@inel.gov